Implementation of the Total Safety Culture at the Idaho National Engineering & Environmental Laboratory [INEEL]

Historical Perspective

Behavioral based safety [BBS] at the INEEL began in the early 90's. Even though our injury/illness rates were good, it was important for us to search for something innovative to make a difference with our employees. Three of the original references that guided our search were:

> Techniques of Safety Management, Dan Petersen, 1971, "Fundamental Safety Tenets—Unsafe Acts and Conditions"
>
> Safety Management Today-A Human Approach, Dan Petersen, 1975, "Behavioral Modification"
>
> The Challenge of Change-Creating a new Safety Culture, Dan Petersen, 1990

All three references promoted the human aspect [behavior] of safety, and one of the key elements of the Challenge of Change was "safety behavior sampling". In our desire to identify more concrete tools to implement a behavioral process, our research lead us to a new publication entitled, "The Behavior-Based Safety Process-Managing Involvement for an Injury-Free Culture", Thomas Krause, John Hidley and Stanley Hodson, 1990. From information gleaned from these primary references, we developed our own "home-grown" behavioral observation process.

In late 1991, it appeared that the "climate" was appropriate for us to pilot the new behavioral sampling process in the Fleet Management organization. This organization was selected for several reasons: 1) management supported the process 2) the mechanics and drivers were willing to participate 3) worker turn-over was minimal 4) work was performed mainly in two buildings 5) work tasks were fairly repetitive 6) morale within the group was positive and 7) historical injury/illness data was readily available. We next presented the principles of BBS to line

management and with their concurrence moved forward with employee implementation.

Some of the basic steps in implementing this process were:

- Preparing an implementation plan
- Soliciting a worker implementation group
- Identifying "critical" behaviors
- Organizing the behaviors into a simple checklist
- Training workers in the techniques of conducting observations
- Distributing the checklists to the workers
- Conducting observations using the checklists
- Collecting the checklists and calculating the % Safe
- Working actions to minimize the more at-risk behaviors

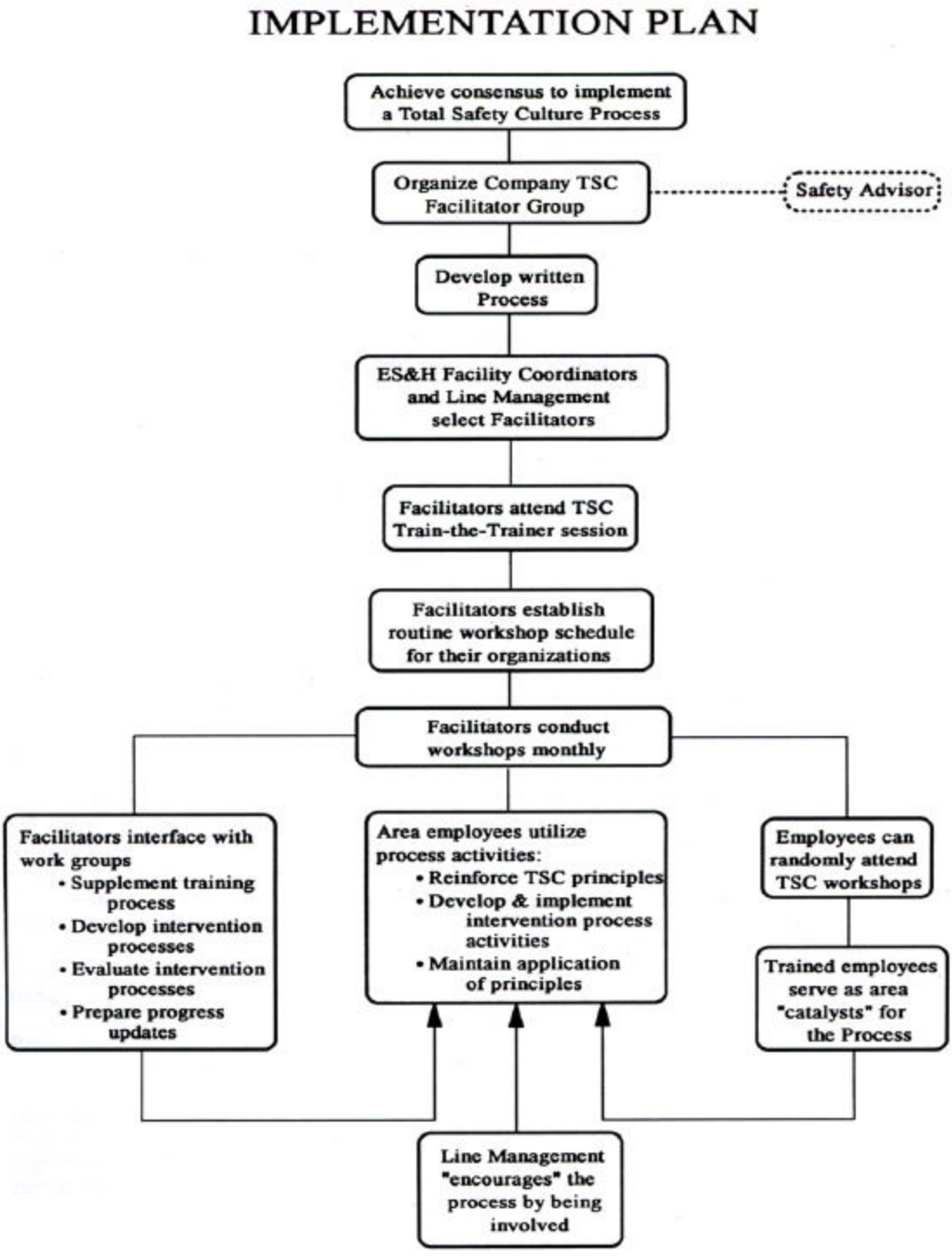
The above pilot program [Employee Safety Assurance Process—ESAP] was in affect for 1-2 years, and was well received by the workers. In the interim we continued to search for more information, anticipating that it would take more than checklists and observations to actual make a long-term change in behavior. In 1993, our search of published articles regarding BBS; lead us to Dr. E. Scott Geller at Virginia PolyTech, in Blacksburg, Virginia. His comprehensive approach to a "Total Safety Culture" was the tool that we were seeking.

Sharing Opportunities

Some of the INEEL's activities with BBS received attention at DOE Headquarters. A request was made of the INEEL to host a one-day roundtable in Idaho Falls on BBS. In 1994, that roundtable was conducted and was attended by representatives across the Complex. Soon after this roundtable, DOE sponsored a workshop in Washington D.C. on BBS and the INEEL presented a discussion on "Developing a Total Safety Culture". In late 1994, the 3rd Annual DOE Occupational Safety and Health Conference was held in San Diego. A contingent of INEEL employees presented the topic of "Actively Caring for a Total Safety Culture".

Implementation of the Total Safety Culture [TSC]

Implementation began with the development of a Project Management Plan. This plan was prepared and issued in January, 1994.



In 1993, the INEEL, Inc. consulted with Dr. Geller and his staff regarding TSC. A contract was established for them to present the fundamentals of TSC to management plus a selected group of employees. An important determination was made upfront to train our own facilitators to implement the process, rather than depending on an outside entity for implementation. During February 1994, Dr. Geller visited the INEEL and presented an overview of the process to the management team. A month later, several members of Geller's staff came to the INEEL and delivered a 3-day Train-the-trainer workshop. There were approximately 20 employees who volunteered to be TSC facilitators. After the 3-day workshop for facilitators, a 1-day workshop was developed [later modified to a 4-hour workshop] that could be presented to general employees. It was employees teaching employees. Employees were not required to attend the workshops. The approach was voluntary and not mandatory. The concept was "slow and steady wins the race". The workshops were always well attended, and the TSC principles openly received by employees. Workshop participants were able to:

- Define a Total Safety Culture
- Understand the importance of targeting behaviors
- Explain the new philosophy of "actively caring" in the workforce
- Understand the factors that influence cultural change [environmental, behavioral, and person]
- Develop interventions to change behaviors
- Practice techniques in providing one-on-one feedback to peers
- Design and implement DO IT's [Define-Observe-Intervene-Test] in the workplace

During the next 5 years, there were approximately 4500 employees who participated in TSC training. The actively caring philosophy was carefully infused into the culture. Employees' throughout the company conducted DO ITs that were applicable to their individual working groups. There were articles regularly published in the various company communication tools, keeping the BBS message in the forefront. Also in 1995, Dr. Geller returned to the INEEL to provide a refresher on TSC.

In 1995, the INEEL officially began to implement the criteria from the Department of Energy Voluntary Protection Program [VPP]. The TSC worked "hand in glove" with VPP. BBS [TSC] was a significant contributor

to our employee involvement element of VPP. TSC and VPP are a perfect match.

Implementation of the Worker Applied Safety Program [WASP]

In 1999, several Craft workers visited a VPP Site that had an active BBS process. Our employees came back to Idaho excited with a desire to enhance the TSC by developing and implementing a formal observation and feedback process. The new WASP committee convened and developed the formal observation and feedback process, similar to the one that been utilized in Fleet Management in the early 90's. The WASP committee accomplished the following:

- Prepared a Charter
- Designed a logo
- Reviewed the injury/illness data and identified target behaviors
- Developed checklists that could be used company-wide
- Established WASP checklist collection boxes and facility display boards
- Developed a database to collect the checklist data and prepare reports
- Developed an intranet WASP homepage
- Developed and presented WASP overviews

The WASP committee meets monthly to administer the affairs of the WASP program. This committee, each year, has a "Retreat" where new members are trained and more seasoned members are refreshed in TSC concepts and principles, plus they identify continuous improvement opportunities for the WASP program. These retreats have been presented by in-house advisors and/or by consultants from Safety Performance Solutions in Blacksburg, Virginia. Dr. Geller returned to the INEEL in January 2002, to present supplemental TSC information to the management team.

Current Resources:

Working Safe-How to Help People Actively Care for Health and Safety, E. Scott Geller, 1996

The Psychology of Safety Handbook, E. Scott Geller, 2001

Keys to Behavior-Based Safety, Safety Performance Solutions, Featuring E. Scott Geller, 2001

The Participation Factor-How to Increase Involvement in Occupational Safety, E. Scott Geller, 2002